AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. **(currently amended)** A pressure monitoring device for a paint spray gun, the pressure monitoring device comprising;

a housing having an air inlet, an air outlet and an air passage connecting the inlet and the outlet;

means for coupling the air inlet with an outlet of a compressed air supply and means for coupling the air outlet with an air inlet of the paint spray gun;

a digital pressure gauge housed in the housing and positioned to monitor pressure at a pressure take off point in the air passage;

a valve housed in the housing and operable to adjust air flow in the air passage; and

valve adjustment means for adjusting an opening of the valve and accessible externally of the housing;

wherein

the air inlet, air outlet and air passage are shaped and the valve is positioned so as to provide minimal turbulence of air flow and minimal pressure drop through the device;

the air inlet and outlet comprise inlet and outlet ~~a pair of~~ cavities, respectively, each said cavity having

a substantially circular cross-sectioned portion adjacent an entry of the air inlet or an exit of the air outlet, respectively,

a substantially segmental cross-sectioned portion ~~adjacent the pressure take off point and~~ passing through a first plane which includes a valve seat of the valve, and

a tapered section separating the substantially circular and segmental cross-sectioned portions, said tapered section tapering from the circumference of the

circular cross-sectioned portion to the chord of the segmental cross-sectioned portion;

the pressure take off point is positioned in the outlet cavity, downstream of the valve seat, in a region where there is minimal turbulence of air flowing through the air passage, and outside a second plane that is perpendicular to a longitudinal axis of the housing and contains an axis of the valve;

~~at least one of~~ the segmental cross-sectioned ~~portions~~ portion of the inlet cavity terminates in a taper extending from the chord to the arc of the segmental cross-sectioned portion; and

the pressure take off point is situated either ~~(i) in said at least one of the segmental cross-sectioned portions or (ii) in the taper and facing the air outlet~~

(i) facing the exit of the air outlet across said second plane, or

(ii) separated, in a direction parallel to the longitudinal axis of the housing, from the entry of the air inlet by said taper of the segmental cross-sectioned portion of the inlet cavity.

2. (previously presented) A pressure monitoring device as claimed in claim 1, wherein the air inlet and air outlet are arranged in line with each other.

3. (cancelled)

4. **(currently amended)** A pressure monitoring device as claimed in claim 1, wherein the cavities are arranged on opposite sides of [[a]] the longitudinal axis of the housing with the chords of the segmental cross-sectioned portions in substantially parallel alignment.

5. **(currently amended)** A pressure monitoring device as claimed in claim 4, wherein the air passage is a bore which passes through the two segmental cross-sectioned portions ~~and the pressure take off point is located in the bore~~.

6. (previously presented) A pressure monitoring device as claimed in claim 5, wherein the bore has an axis which is substantially orthogonal to the longitudinal axis of the housing.

7. **(currently amended)** A pressure monitoring device as claimed in claim 1, wherein the tapered sections of the two cavities are at the same angle with respect to the first plane which includes the valve seat.

8. **(currently amended)** A pressure monitoring device as claimed in claim 1, wherein the tapered sections of the two cavities are at different angles with respect to the first plane which includes the valve seat.

9. (previously presented) A pressure monitoring device as claimed in claim 1, wherein the cavities are of substantially the same size and shape.

10. (cancelled)

11. (previously presented) A pressure monitoring device as claimed in claim 1, wherein the chord surface of said at least one of the segmental cross-sectioned portions is longer than the arced surface.

12-13. (cancelled)

14. **(currently amended)** A pressure monitoring device as claimed in claim 1, wherein the taper is at an angle of from about 30° to about 80° with respect to the first plane which includes the valve seat.

15. **(currently amended)** A pressure monitoring device as claimed in claim 1, wherein the taper is at an angle of between 55° and 80° with respect to the first plane which includes the valve seat.

16. **(currently amended)** A pressure monitoring device as claimed in claim 1, wherein

the taper of the segmental cross-sectioned portion of ~~associated with~~ the inlet cavity is at an angle of 60° with respect to the first plane which includes the valve seat; and

~~the taper of~~ the segmental cross-sectioned portion of ~~associated with~~ the outlet cavity terminates in a further taper extending from the chord to the arc of the segmental cross-sectioned portion [[is]] at an angle of 75° with respect to the first plane which includes the valve seat.

17. (previously presented) A pressure monitoring device as claimed in claim 1, wherein the digital gauge has a human readable display visible at a surface of the housing.

18. **(currently amended)** A pressure monitoring device as claimed in claim 17, wherein the gauge display and valve adjustment means are arranged in line with each other along the axis of the valve and on opposing surfaces of the housing ~~and in a plane substantially orthogonal to the plane which contains the valve seat~~.

19. **(currently amended)** A pressure monitoring device as claimed in claim 1, wherein the housing, including the air inlet and air outlet, is selected from the group consisting of a die cast housing, [[or]] an injection moulded housing, and a zinc die cast housing.

20. (cancelled)

21. (previously presented) A pressure monitoring device as claimed in claim 1, wherein the housing has an IP66 casing integrity.

22. (previously presented) A pressure monitoring device as claimed in claim 1, wherein the valve is a needle valve and the valve adjustment means comprise a screw threaded knob.

23. (previously presented) A pressure monitoring device as claimed in claim 22, wherein the thread of the knob is configured to allow increments of adjustment of the air flow being at least comparable to the resolution of the pressure gauge.

24. (cancelled)

25. (previously presented) A paint spray gun, comprising:

a gun body,

a trigger mounted on the gun body,

a nozzle which is at a front end of the gun body and through which atomised paint is sprayed,

a spreader valve at a rear end of the gun body for adjusting air flow to the nozzle,

a fluid flow valve at the rear end of the gun body for adjusting a flow rate of paint delivered to the nozzle,

an air inlet port at a bottom of the gun body, and

a pressure monitoring device, comprising;

a housing having an air inlet, an air outlet and an air passage connecting the inlet and the outlet;

means for coupling the air inlet with an outlet of a compressed air supply and means for coupling the air outlet with an air inlet of the paint spray gun;

a digital pressure gauge housed in the housing and positioned to monitor pressure at a pressure take off point in the air passage;

a valve housed in the housing and operable to adjust air flow in the air passage; and

valve adjustment means for adjusting an opening of the valve and accessible externally of the housing;

wherein

the air inlet, air outlet and air passage are shaped and the valve is positioned so as to provide minimal turbulence of air flow and minimal pressure drop through the device;

the air inlet and outlet comprise a pair of cavities, each cavity having

a substantially circular cross-sectioned portion adjacent an entry of the air inlet or an exit of the air outlet, respectively,

a substantially segmental cross-sectioned portion adjacent the pressure take off point and passing through a plane which includes a valve seat of the valve, and

a tapered section separating the substantially circular and segmental cross-sectioned portions, said tapered section tapering from the circumference of the circular cross-sectioned portion to the chord of the segmental cross-sectioned portion;

the pressure take off point is positioned downstream of the valve in a region where there is minimal turbulence of air flowing through the air passage; and

the air inlet of said pressure monitoring device is connectable to the compressed air supply and the air outlet of said pressure monitoring device is coupled to the air inlet port of the gun body for monitoring and adjusting a flow rate of air entering the air inlet port from the compressed air supply.

26-33. (Cancelled)

34. **(new)** A pressure monitoring device for a paint spray gun, the pressure monitoring device comprising;

a housing having an air inlet, an air outlet and an air passage connecting the inlet and the outlet;

a pressure gauge housed in the housing and positioned to monitor pressure at a pressure take off point in the air passage;

a valve housed in the housing and operable to adjust air flow in the air passage; and

a valve adjustment element for adjusting an opening of the valve and accessible externally of the housing;

wherein

the air inlet and outlet comprise inlet and outlet cavities, respectively, each said cavity having

a substantially circular cross-sectioned portion adjacent an entry of the air inlet or an exit of the air outlet, respectively,

a substantially segmental cross-sectioned portion, and

a tapered section connecting the substantially circular and segmental cross-sectioned portions, said tapered section tapering from the circumference of the circular cross-sectioned portion to the chord of the segmental cross-sectioned portion;

the segmental cross-sectioned portion of the inlet cavity terminates in a taper extending from the chord to the arc of the segmental cross-sectioned portion;

the pressure take off point is positioned in the outlet cavity, downstream of the valve, and outside a plane that is perpendicular to a longitudinal axis of the housing and contains an axis of the valve; and

the pressure take off point is positioned either

(i) facing the exit of the air outlet across said plane, or

(ii) separated, in a direction parallel to the longitudinal axis of the housing, from the entry of the air inlet by said taper of the segmental cross-sectioned portion of the inlet cavity.

35. **(new)** A pressure monitoring device as claimed in claim 34, wherein the pressure take off point is positioned facing the exit of the air outlet across said plane.

36. **(new)** A pressure monitoring device as claimed in claim 34, wherein the pressure take off point is separated, in the direction parallel to the longitudinal axis of the housing, from the entry of the air inlet by said taper of the segmental cross-sectioned portion of the inlet cavity.

37. **(new)** A paint spray gun, comprising:

a gun body,

a trigger mounted on the gun body,

a nozzle which is at a front end of the gun body and through which atomised paint is sprayed,

a spreader valve at a rear end of the gun body for adjusting air flow to the nozzle,

a fluid flow valve at the rear end of the gun body for adjusting a flow rate of paint delivered to the nozzle,

an air inlet port at a bottom of the gun body, and

a pressure monitoring device as claimed in claim 34, wherein the air inlet of said pressure monitoring device is connectable to the compressed air supply and the air outlet of said pressure monitoring device is coupled to the air inlet port of the gun body for monitoring and adjusting a flow rate of air entering the air inlet port from the compressed air supply.